APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,599	04/22/2004	Kuldipsingh A. Pabla	5681-75600	6853

58467   7590   11/07/2008

MHKKG/SUN
P.O. BOX 398
AUSTIN, TX 78767

EXAMINER
JACOBS, LASHONDA T

ART UNIT	PAPER NUMBER
2457	

MAIL DATE	DELIVERY MODE
11/07/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/829,599	PABLA, KULDIPSINGH A.
	Examiner	Art Unit	
	LASHONDA T. JACOBS	2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 October 2008</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-52</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-52</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Applicant's amendment filed on October 6, 2008.

Claims 1-52 are still pending and presented for further examination.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims **1-6, 9-12, 15-18, 21-26, 29-33, 36-42** and **45-50** are rejected under 35

U.S.C. 103(a) as being unpatentable over Doyle (U.S. Patent No. US 6,009,455) in view of

Kortuem et al (When Peer-to-Peer comes Face-to-Face: Collaborative Peer-to-Peer Computing in

Mobile Ad hoc Networks published in First International Conference on Peer-to-Peer Computing

proceedings, August 2001, Pages: 75-91) (hereinafter, "Kortuem").

    As per claims **1, 9, 15, 21, 29, 36, 37** and **45**, Doyle discloses a grid computing system,

comprising:

- a master node configured to manage a grid comprising one or more compute nodes

    (master computer 5 in figure 2a and client computers 11 in figure 2a in which the master

    computer executes a master control program, reference character 10 in figure 2a, to

    mange the distributed computation between job request/output means and client

    computers, see, e.g., col. 3, lines 42-57 and figure 2a);

- a node configured to send the master node information about compute node

  configuration to the node (client control program, reference character 12 in figure 2a,

  sends to the master computer the existence and configuration of various predetermined

  resources on the client computer, see, e.g., col.3, line 64 to col. 4, line 10);

wherein the master node is configured to:

- determine from the information about compute node configuration that the compute

  node configuration of the node needs to be updated (qualification algorithm, 45 in figure

  2b, in the master control program determines if an available client is a candidate to

  participate in a distributed computation, see, e.g., col. 4, lines 20-23); and

- send update information for the compute node configuration that the compute node

  configuration of the node needs to be updated (job computation module, 14 in figure 2c,

  determine which mode the program should operate based on the job request message

  from job request means, 1 in figure 2c, and sends it to the available clients, see, e.g., col.

  5, line 64 to col. 6, line 16).

However, Doyle does not explicitly disclose:

- in accordance with the one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- in accordance with the one or more peer-to-peer platform protocols (see, e.g., page 85,

  section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc

  Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-

  peer applications. Presence protocol (Proem) contains messages that allow peers to

announce their presence and the availability of entities throughout a network.

Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

As per claim **22**, **38** and **46**, Doyle discloses:

- wherein the other node is a logically nearby node to the system on the network (col. 3, lines 42-57).

As per claims **23**, **30**, **39** and **47**, Doyle discloses:

- wherein the node is a master node configured to manage the grid (master computer 5 in figure 2a and client computers 11 in figure 2a in which the master computer executes a master control program, reference character 10 in figure 2a, to mange the distributed computation between job request/output means and client computers, see, e.g., col. 3, lines 42-57 and figure 2a).

As per claims **24**, **31**, **40** and **48**, Doyle discloses:

- wherein the node is a compute node in the grid (master computer 5 in figure 2a and client computers 11 in figure 2a in which the master computer executes a master control program, reference character 10 in figure 2a, to mange the distributed computation between job request/output means and client computers, see, e.g., col. 3, lines 42-57 and figure 2a).

As per claim **25**, Doyle discloses the invention substantially as claims discussed above.

However, Doyle does not explicitly disclose:

- wherein the program instructions are further executed by the processor to discover the
  node in accordance with one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- wherein the program instructions are further executed by the processor to discover the
  node in accordance with one or more peer-to-peer platform protocols (see, e.g., page 85,
  section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc
  Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-
  peer applications. Presence protocol (Proem) contains messages that allow peers to
  announce their presence and the availability of entities throughout a network.

  Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention
to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover
all neighboring nodes, which have not been connected as a fixed network or configured, with the
master node to participate in distributed or grid computing system.

As per claims **2**, **10**, **16**, **41** and **49**, Doyle discloses the invention substantially as claims
discussed above.

However, Doyle does not explicitly disclose:

- wherein the node is further configured to discover the master node in accordance with
  one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- wherein the program instructions are further executed by the processor to discover the
  node in accordance with one or more peer-to-peer platform protocols (see, e.g., page 85,
  section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc
  Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-
  peer applications. Presence protocol (Proem) contains messages that allow peers to
  announce their presence and the availability of entities throughout a network.

  Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention
to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover
all neighboring nodes, which have not been connected as a fixed network or configured, with the
master node to participate in distributed or grid computing system.

As per claims **3**, Doyle discloses:

- wherein the node comprises a bootstrapping mechanism configured to discover the
  master node and to send the discovered master node information about compute node
  configuration in accordance with the one or more peer-to-peer platform protocols at
  startup of the node (the primary function of the availability algorithm, 13 in figure 2a, is
  to notify the master computer that the client is available, see, e.g., col. 3, lines 58-61)
  configured to discover the master node and to send information about the node to the
  discovered master node see, e.g., col. 4, line 14-20).

However, Doyle does not explicitly disclose:

- in accordance with the one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- in accordance with the one or more peer-to-peer platform protocols (see, e.g., page 85, section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-peer applications. Presence protocol (Proem) contains messages that allow peers to announce their presence and the availability of entities throughout a network.

    Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

    It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

    As per claims **4, 11, 17, 32,** Doyle discloses:

- wherein the node is further configured to update the compute node configuration in accordance with the update information (client control program, reference character 12 in figure 2a, sends to the master computer the existence and configuration of various predetermined resources on the client computer, see, e.g., col.3, line 64 to col. 4, line 10).

    As per claims **5, 12, 18, 26, 33, 42** and **50,** Doyle discloses:

- wherein the node is further configured to self-configure as a compute node in the grid in accordance with the updated grid configuration information (availability algorithm, 13 in figure 2b, concludes the respective client computer as available clients and qualification algorithm, 45 in figure 2b, determines the available clients as a candidate to participate in a distributed computation, see, e.g., col. 4, lines 11-27).

As per claim **6**, Doyle discloses wherein the grid computing system further comprises a job

submitter node and wherein the master node is further configured to:

- receive a job from the job submitter (each selected client is downloaded with the job

  request files, 18 in figure 2d, included in the segment group package from the master

  control program, 46 in figure 2d, see, e.g., col.6 lines 21-26 and figure 2d);

- distribute the job to the node for execution (each selected client is controlled by sending

  commands and files from the master control program to the client control program over

  the network, see, e.g., col. 6, lines 17-29 and figure 2d);

- receive the results of the execution from the node (the output files from the two selected

  clients are uploaded to the master computer, see, e.g., col. 6, lines 56-60 and figure 2e);

  and

- send the results to the job submitter node (job output means, reference character 3 in

  figure 2a, see, e.g., col. 3, lines 20-23 and the master control program then forwards

  these formatted files to the job output means, see, e.g., col. 7, lines 25-36 and figure 2f).

However, Doyle does not explicitly disclose:

- in accordance with the one or more peer-to-peer platform protocols.

Kortuem discloses discovering neighboring nodes in peer-to-peer system comprising;

- in accordance with the one or more peer-to-peer platform protocols (see, e.g., page 85,

  section 4.2.3: Protocols and Messages and see, page 87, section 5.1: Proem and Ad hoc

  Networks, Proem is a general-purpose platform for building arbitrary mobile peer-to-

  peer applications. Presence protocol (Proem) contains messages that allow peers to

announce their presence and the availability of entities throughout a network.

Therefore, Kortuem discloses devices in accordance with Proem peer-to-peer protocol).

It would have been obvious for one of ordinary skill in the art at the time of the invention to combine Doyle to include the peer-to-peer protocol as taught by Kortuem in order to discover all neighboring nodes, which have not been connected as a fixed network or configured, with the master node to participate in distributed or grid computing system.

3.   Claims **7, 13, 19, 27, 34, 43** and **51** are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle in view of Kortuem and further in view of Sun Cluster Grid architecture (hereinafter Sun Cluster)(Sun Cluster Grid Architecture- a Technical White Paper Describing the Foundation of Sun Grid Computing, published by Sun Microsystems on May 2002).

As per claims **7, 13, 19, 27, 34, 43** and **51**, Doyle in view of Kortuem discloses the invention substantially as claims discussed above.

However, Doyle in vie of Kortuem does not explicitly disclose:

- wherein the grid computing system is configured according to Sun Cluster Grid
  architecture.

Sun Cluster discloses Sun Cluster Grid architecture provides the foundation for building and deploying a Cluster Grid system (see, e.g., pages 20-21).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Doylein view of Kortuem to include Sun Cluster Grid architecture as the grid computing system as taught by Sun Cluster in order to provide scalable and reliable foundation

for building and deploying a successful Grid system.

4.   Claims **8**, **14**, **20**, **28**, **35**, **44** and **52** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Doyle in view of Kortuem and further in view of JXTA Chapter 1 (JXTA, by

Brendon J. Wilson, published by New Riders Publishing on June 2002).

     As per claims **8**, **14**, **20**, **28**, **35**, **44** and **52**, Doyle in view of Kortuem discloses the

invention substantially as claims discussed above.

     However, Doyle in view of Kortuem does not explicitly disclose:

     •   wherein the peer-to-peer platform protocols are JXTA protocols.

     JXTA Chapter 1 defines JXTA protocols are language-independent, defining a set of

XML messages to coordinate some aspect of P2P networking (see, e.g., pages 13-14).

     It would have been obvious for one of ordinary skill in the art at the time of the invention

to modify Doyle in view of Kortuem to include JXTA protocols as the peer-to-peer platform

protocols as taught by JXTA Chapter 1 in order to simplify the implementation of peer-to-peer

networking solutions on any devices.

Response to Arguments

5.   Applicant's arguments with respect to claims **1-52** have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LASHONDA T. JACOBS whose telephone number is (571)272-4004. The examiner can normally be reached on 8:30 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LaShonda T Jacobs/
Primary Examiner, Art Unit 2457

ltj
November 5, 2008